

REMARKS

Applicant has amended independent claims 7, 13 and 19 to recite that the instantaneous signal to noise ratio is determined at a particular instance of time. These amendments do not introduce new matter as the signal to noise ratio is the instantaneous signal to noise and the word "instantaneous" means that the ratio is determined at a particular instant of time. Applicant has also amended independent claims 7, 13 and 19 to insert the word "determined" before "instantaneous" at various places in each of those claims.

The Rejections of the Claims

The examiner has rejected claims 7-25 as unpatentable over previously cited U.S. Patent No. 4,969,363 (Mochizuki) in view of previously cited U.S. Patent 6,611,770 (O'Donnell et al.) hereinafter "O'Donnell".

In support of this rejection of independent claim 7, the examiner says that Mochizuki teaches with reference to column 5, lines 57-68 the adjusting in response to a conductivity signal the power provided by the supply so that the power is supplied inverse to the instantaneous signal to noise ratio. This passage says that the conductivity signal is determined and when the conductivity decreases below a predetermined value the microcomputer causes an increase in the excitation voltage (col. 5, lines 57-63) and as a result the output signal is increased in proportion to the excitation voltage therefore improving the S/N ratio (col. 5, lines 64-65).

The examiner then says that O'Donnell with reference to column 2, lines 32-39 and column 6, lines 52-61 "states that the conductivity signal corresponds to the signal to noise ratio so that a higher conductivity means a good signal to noise ratio and a lower conductivity means high noise". The examiner then says with reference to column 1, lines 12-30 of O'Donnell that it "would have been obvious to one of ordinary skill in the art at the time of the invention to modify Mochizuki to include the signal to noise ratio of O'Donnell because it avoids leakage

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problems".

The leakage problems referred to by the examiner are "current leakage problems" (see column 1, line 30 of O'Donnell). As O'Donnell states at column 1, lines 23 to 29 the current leakage problems arise because the injection of ac, dc or pulsed signal into the electrode circuit of the flowmeter to detect conductivity causes an undesired path for leakage current and a calibration shift of the flow rate results from this leakage.

The examiner makes a similar argument in rejecting independent claims 13 and 19.

Mochizuki shows various pulse injection circuits and thus the flowmeter of Mochizuki may have the current leakage problem that is said to be solved by O'Donnell's invention and thus the combination of Mochizuki and O'Donnell as urged by the examiner may solve Mochizuki's current leakage problem but that is not applicant's invention as taught and claimed in amended independent claims 7, 13 and 19.

As amended herein these claims call for "determining at a particular instance of time from said signal representative of said flow rate an instantaneous signal-to-noise ratio" and then using that determined instantaneous signal-to-noise ratio to adjust the power provided by the power supply so that the power is provided by the supply inversely proportional to the determined instantaneous signal to noise ratio. Thus, applicant submits that the combination of Mochizuki and O'Donnell urged by the examiner does not for the reasons given above meet the limitations in amended independent claims 7, 13 and 19

Ignoring limitations in a claim is contrary to established U.S. law concerning obviousness, which requires that "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

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Applicant hereby requests reconsideration of the rejection of claims 7-25.

Respectfully submitted,

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/Michael M. Rickin/

Michael M. Rickin
Reg. No. 26,984
Attorney for Applicant
ABB Inc.
29801 Euclid Avenue
Wickliffe, OH 44092
(440) 585-7840